REMARKS

This application has been amended in a manner that is believed to place it in condition for allowance at the time of the next Official Action.

Claims 1-9 have been canceled. New claims 16-27 have been added. Claims 16-18 are directed to a method for increasing the oil content of an oil-producing plant. Claims 19-20 are directed to a nucleotide sequence encoding for an enzyme that catalyzes the transfer of a fatty acid from acyl-CoA. Claims 21-25 are directed to transgenic plants having the nucleotide sequence of the claimed invention. Claims 26 and 27 relate to methods for increasing the oil content of an oil-producing organism. Support for new claims 16-27 may be found generally throughout the specification and in original claims 1-9.

In the outstanding Official Action, claims 1-9 were rejected under 35 USC §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicants believe that the present amendment obviates this rejection.

The outstanding Official Action alleged that the present specification does not describe sequences other than SEQ

ID Nos. 1 and 2. The Examiner's attention is respectfully directed to new claims 16-18. As noted above, new claims 16-18 relate to a method for increasing the oil content of an oil-producing plant. Independent claim 16 recites that the enzyme involved in increasing the oil content of an oil-producing plant comprises SEQ ID No. 2. The nucleotide sequences are clearly recited in the present specification beginning on page 4.

Claims 19-20 are directed to a nucleotide sequence encoding for an enzyme that catalyzes the transfer of fatty acid from acyl-CoA to diacylglycerol for the production of triacylglycerol (TAG), wherein the nucleotide sequence is derived from SEQ. ID NO. 1 or ARE1 gene and the enzyme has an amino acid sequence comprising SEQ ID No. 2. Claims 21-25 are directed to transgenic plants containing the nucleotide sequences.

Claims 26 and 27 relate to methods for increasing the oil content of an oil-producing organism. Claim 26 recites that the organism may be selected from the group consisting of *Arabidopsis* and yeast. Claim 27 recites an oil-producing plant. As noted above, the sequences recited in claims 26 and 27 are described in the present specification.

Thus, upon reviewing the present disclosure, it is believed that the specification sufficiently describes the claimed invention in such full, clear, concise and exact terms so that one of ordinary skill in the art would recognize that

applicants were in possession of the claimed invention at the time the application was filed.

Claims 1-9 were also rejected under 35 USC §112, first paragraph, for allegedly being based on a non-enabling disclosure. It is believed that the present amendment obviates this rejection.

The outstanding Official Action stated that the present disclosure is enabling for a method for increasing TAG oil levels in yeast and *Arabidopsis* transformed with SEQ ID No. 1. However, the Official Action alleged that the specification did not reasonably provide enablement for any organism transformed with any nucleic acid sequence encoding an amino acid that catalyzes the transfer of a fatty acid from acyl-CoA to diacylglycerol for the production of triacylglycerol (TAG), thereby increasing the oil content of a transgenic organism. As a result, the Examiner contends that one of ordinary skill in the art would only be able to practice the claimed invention on a trial and error basis (see official action, pg. 7).

It is believed that the present amendment obviates this contention. Moreover, the Examiner is respectfully reminded that the test of enablement is not whether any experimentation is necessary, but whether, if the experimentation is necessary, it is undue. *In re Angstadt*, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976). In fact, a disclosure is enabling, even if a

considerable amount of experimentation is involved if it is merely routine and not unduly extensive.

While some experimentation may be needed to transform organisms other than *Arabidopsis* and yeast with the current sequences, applicants note that the claimed sequences are clearly recited in the present disclosure. It would not be the case that one skilled in the art would have to isolate a multitude of unknown sequences or evaluate how these allegedly numerous sequences would alter the phenotype of plants. Thus, while some kind of experimentation may be needed to practice the claimed invention, it is believed that this experimentation would be merely routine and not unduly extensive. It is believed that the present disclosure enables the claimed invention.

As further evidence of this assertion, applicants enclose the declaration of Dr. Oliver Oswald. The declaration shows that *Brassica napus* that over-expresses the ARE1gene exhibit a significant increase in oil content. It is believed that the declaration demonstrates that the claimed invention is supported by the present disclosure for species beyond *Arabidopsis* and yeast.

Claims 1-9 were rejected under 35 USC §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

The outstanding Official Action objected to the term "is derived from" found in claim 2. Moreover, the Official Action objected to claims 1-4 as relating to "use" claims. As noted above, claims 1 and 9 have been canceled. It is believed to be apparent that new claims 15-27 have been drafted in a manner such that the term "is derived from" is no longer recited in the claims. Moreover, claims 15-27 have been drafted in a manner so that the claimed invention is no longer directed to "use" claims. Thus, it is believed that claims 15-27 are definite to one of ordinary skill in the art.

Claims 1-6 were rejected under 35 USC §101 for allegedly being directed to non-statutory subject matter. It is believed that the present amendment obviates this rejection.

The outstanding Official Action alleged that the claimed invention encompassed the transformation of humans and transformed humans. It is believed to be apparent that claims 16-28 have been drafted in a manner that obviates this rejection.

Claims 1 and 9 were rejected under 35 USC §102(b) as allegedly being anticipated by LARDIZABAL et al. It is believed that the present amendment obviates this rejection.

In imposing the rejection, the outstanding Official Action alleged that the claims were indefinite and read on any nucleic acid sequences having diacylglycerol accyltransferase activity. However, as noted above, claims 1-9 have been canceled and new claims 16-27 have been added. New claims 16-27 relate to

a method of increasing the oil content of an oil-producing plant. Upon reviewing LARDIZABAL et al., it is respectfully submitted that LARDIZABAL et al. fail to disclose or suggest the nucleotide and/or amino acid sequences of the present invention. Thus, it is respectfully submitted that LARDIZABAL et al. fail to anticipate the claimed invention.

In view of the present amendment and the foregoing remarks, therefore, it is believed that the present application is now in condition for allowance, with claims 16-27, as presented. Allowance and passage to issue on that basis are accordingly respectfully requested.

Respectfully submitted,

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